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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,907	04/25/2007	Toru Nishimura	0425-1253PUS1	7128
2292	7590	08/05/2011	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				QIAN, YUN
ART UNIT		PAPER NUMBER		
1732				
NOTIFICATION DATE		DELIVERY MODE		
08/05/2011		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/574,907	NISHIMURA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	YUN QIAN	1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 November 2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-10 and 12-16 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-10 and 12-16 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 25 April 2007 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1.) Certified copies of the priority documents have been received.  
 2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review (PTO-948)                            | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 20, 2010 has been entered.

### ***Status of Claims***

Claims 1-10 and 12-16 remain for examination. Claims 1 and 10 have been amended.

Claim 11 is previously cancelled.

### ***Previous Grounds of Rejection***

Regarding claims 1-6 and 8-9, the rejection under 35 U.S.C.103 (a) as being unpatentable over Mizumoto et al (US 4,631,263) is amended as claim 1 is amended.

Regarding claim 7, the rejection under 35 U.S.C. 103(a) as being unpatentable over Mizumoto et al., in further view of Nishino et. al. (JP 55-149355) is withdrawn as claims 1 is amended to incorporate the limitation of "the catalyst is a site of reaction".

Regarding claims 10 and 12-16, the rejection under 35 U.S.C.103 (a) as being unpatentable over Yokota et al. (US 4,625,063) in view of Mizumoto et al (US 4,631,263) are withdrawn as claims 10 is amended to incorporate the limitation of "reacting...inside a film-type catalyst".

A new ground(s) of rejection is made as follows.

***New Grounds of Rejection***

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 and 12-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 10 recite the limitation of “inside the film-type catalyst” as a site of reaction.

Such amendments are not supported in the specification. In paragraph [0036] in the instant specification, it states “the mass transfer between the inside and outside of the catalyst can be promoted thereby effectively utilizing the whole of the catalyst and simultaneously suppressing the excessive reaction the intermediate reaction produce in the inside of the catalyst”. There is not any support for the instant amendment “the inside of the catalyst is a site of reaction for producing said tertiary amine...” ( Cited from the instant claim 1) or “...reacting an alcohol with a primary or secondary amine inside a film -type catalyst...” (the instant claim 10).

Appropriated corrections are required.

***Claim Rejections - 35 USC § 112***

.The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim1-10 and 12-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 10 recite the limitations of “the diffusion rate”. There are insufficient antecedent basis for this limitation in the claims and unclear what the subject matter is diffused.

Appropriated corrections are required.

Claim 1 recites the limitation “in the catalyst” in line 10, and “of the catalyst “ in line 11. There is insufficient antecedent basis for this limitation in the claim. They are unclear whether “the catalyst” is directed to “film-type catalyst” or “catalyst particles”. Clarifications are required. For purpose of the examination, they are interpreted as “the film-type catalyst”.

Claim 10 recites the limitation “in the catalyst” in line 8, and “of the catalyst “ in line 9. There is insufficient antecedent basis for this limitation in the claim. They are unclear whether “the catalyst” is directed to “film-type catalyst” or “catalyst particles”. Clarifications are required. For purpose of the examination, they are interpreted as “the film-type catalyst”.

All other claims depend directly or indirectly from the rejected claims and are, therefore, also rejected under 35 USC § 112, second paragraph, for the reasons set forth above.

Claim 1 and 10 claim “on a substrate” and claims 4 and 14 claim “on the surface of a substrate.” It is not clear if these are referring to the same “substrate,” and if claims 1 and 10 includes a substrate, it is not clear if claims 4 and 14 are considered to be further limiting.

### ***Response to Arguments***

#### ***With regards to the previous Grounds of Rejection***

Applicant's arguments filed on June 4, 2010 have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUN QIAN whose telephone number is (571)270-5834. The examiner can normally be reached on Monday-Thursday, 10:00am -4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YUN QIAN/  
Examiner, Art Unit 1732

August 1, 2011

/Melvin Curtis Mayes/  
Supervisory Patent Examiner, Art Unit 1732